

105TH CONGRESS  
2D SESSION

# S. 1739

To establish a commission, under the aegis of the National Science Foundation, to review and propose recommendations for assuring United States leadership in science and mathematics.

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## IN THE SENATE OF THE UNITED STATES

MARCH 10, 1998

Mr. FRIST (for himself and Mr. ROCKEFELLER) introduced the following bill; which was read twice and referred to the Committee on Labor and Human Resources

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## A BILL

To establish a commission, under the aegis of the National Science Foundation, to review and propose recommendations for assuring United States leadership in science and mathematics.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “National Commission  
5       for Science and Mathematics Leadership Act”.

6       **SEC. 2. DEFINITIONS.**

7       As used in this Act, the term—

1           (1) “TIMSS” means the Third International  
2     Mathematics and Science Study; and

3           (2) “Commission” means the National Commis-  
4     sion on Science and Mathematics Leadership estab-  
5     lished by section 4.

6     **SEC. 3. FINDINGS.**

7     The Congress finds that—

8           (1) students in the United States should be pre-  
9     eminent among the nations of the world in science  
10    and mathematics achievement by the year 2000;

11          (2) TIMSS, the largest international study ever  
12    undertaken of how students perform in science and  
13    mathematics, demonstrated that mathematics skills  
14    of American students (including the top 10 percent  
15    of students in the United States) lags behind the  
16    work of students in many other nations;

17          (3) research shows that the problems of stu-  
18    dents in the United States in science and mathe-  
19    matics stem from the lack of a unified effort to de-  
20    fine and implement a process that will assure na-  
21    tional leadership;

22          (4) research shows that the poor performance  
23    of students in the United States in science and  
24    mathematics also stem from the lack of assessment  
25    instruments for curriculum and the lack of a suffi-

1       cient commitment by colleges and universities in the  
2       United States to provide high quality teacher prepa-  
3       ration and professional development programs;

4           (5) there are core problems with the courses of  
5       study and the teaching styles upon which many  
6       schools in the United States rely for instruction in  
7       science and mathematics;

8           (6) the National Science Foundation has con-  
9       cluded that schools in the United States teach math-  
10      ematics concepts in ways that are superficial and,  
11      ultimately, ineffective;

12          (7) a coherent framework for mathematics and  
13      science must be developed to give balanced attention  
14      to basic skills, conceptual understanding, problem  
15      solving, reasoning, communication skills, and appro-  
16      priate use of technology;

17          (8) because of the failure of existing teaching  
18      methods in science and mathematics in the United  
19      States, a systematic retraining of teachers and an  
20      increased emphasis on their professional develop-  
21      ment is required; and

22          (9) teachers of math and science should be well-  
23      trained professionals who combine sound knowledge  
24      of subject matter with the necessary skills and a

1 solid understanding of student learning and assess-  
2 ment.

3 **SEC. 4. COMMISSION.**

4 (a) ESTABLISHMENT.—There is established a com-  
5 mission to be known as the “National Commission for  
6 Science and Mathematics Leadership”.

7 (b) MEMBERSHIP.—The Commission shall be com-  
8 posed of 12 members, of whom—

9 (1) 4 shall be appointed by the President;

10 (2) 4 shall be appointed jointly by the Speaker  
11 and the Minority Leader of the United States House  
12 of Representatives, after consultation with the Com-  
13 mittee on Science of the House; and

14 (3) 4 shall be appointed jointly by the Majority  
15 Leader and the Minority Leader of the United  
16 States Senate, after consultation with the Committee  
17 on Commerce, Science, and Transportation and the  
18 Committee on Labor of the Senate.

19 (c) CHAIRMAN.—The Commission shall elect one of  
20 its members to serve as chairman.

21 (d) QUORUM.—A quorum for the purpose of conduct-  
22 ing meetings of the Commission is 7.

23 (e) COMPENSATION; PER DIEM.—Members of the  
24 Commission shall serve without pay. While away from  
25 their homes or regular places of business in the perform-

1   ance of their duties as members of the Commission, mem-  
2   bers shall be allowed travel expenses, including per diem  
3   in lieu of subsistence, in the same manner as persons em-  
4   ployed intermittently in government service under section  
5   5703 of title 5, United States Code.

6       (f) MEETINGS.—The Commission shall meet at such  
7   times and such places, and hold such hearings, as it con-  
8   siders appropriate.

9       (g) NATIONAL SCIENCE FOUNDATION.—The Na-  
10   tional Science Foundation shall—

11           (1) pay the expenses of the Commission, but  
12       not in excess of \$500,000; and

13           (2) provide administrative support for the Com-  
14       mission.

15       (h) TERMINATION.—The Commission shall terminate  
16   after submitting its report to the Congress under section  
17   6.

18   **SEC. 5. PURPOSE AND FUNCTIONS OF THE COMMISSION.**

19       (a) PURPOSE.—The purpose of the Commission is to  
20   review and propose recommendations for assuring leader-  
21   ship in science and mathematics training in the United  
22   States by the year 2000 in cooperation with the National  
23   Academy of the Sciences by—

1           (1) reviewing existing research based on mathe-  
2       matics and science education leadership, including  
3       the TIMSS findings; and

4           (2) converting the research findings into spe-  
5       cific recommendations for implementation by public  
6       and private agencies.

7       (b) FUNCTIONS.—The Commission shall—

8           (1) review the status of science and mathe-  
9       matics training in the United States as compared to  
10      the status of science and mathematics education rel-  
11      ative to international competitors;

12          (2) review the TIMSS findings and other major  
13      research projects and formulate an implementation  
14      proposal, including specific recommendations which  
15      are reviewed by appropriate public and private agen-  
16      cies, to use the information in those findings and  
17      projects to build leadership in science and mathe-  
18      matics in the United States;

19          (3) propose professional development priorities  
20      based upon available research to strengthen the  
21      teaching of science and mathematics at all edu-  
22      cational levels; and

23          (4) coordinate its activities with the National  
24      Academy of Sciences.

1 **SEC. 6. REPORT.**

2       The Commission shall issue a report to the United  
3 States Senate Committee on Commerce, Science, and  
4 Transportation and the Committee on Labor, and the  
5 United States House of Representatives Committee on  
6 Science no later than 180 days after the date of enactment  
7 of this Act.

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